In the Claims

1. (Original) A high-strength steel having high fatigue strength comprising:

C: 0.3-0.8 percent by mass,

Si: 0.01-0.9 percent by mass, and

Mn: 0.01-2.0 percent by mass,

the remainder containing Fe and unavoidable impurities,

wherein the high-strength steel has a ferrite-cementite structure having a grain size of 7 μm or less, or a ferrite-cementite-pearlite structure having a grain size of 7 μm or less.

2. (Original) The high-strength steel having high fatigue strength according to Claim 1, further comprising:

Mo: 0.05-0.6 percent by mass.

3. (Original) The high-strength steel having high fatigue strength according to Claim 2, further comprising at least one selected from the group consisting of:

Al: 0.015-0.06 percent by mass,

Ti: 0.005-0.030 percent by mass,

Ni: 1.0 percent by mass or less,

Cr: 1.0 percent by mass or less,

V: 0.1 percent by mass or less,

Cu: 1.0 percent by mass or less,

Nb: 0.05 percent by mass or less,

Ca: 0.008 percent by mass or less, and

B: 0.004 percent by mass or less.

4. (Original) The high-strength steel having high fatigue strength according to Claim 1, 2, or 3, wherein the percentage of the cementite structure is 4 percent by volume or more.

5. (Currently Amended) The high-strength steel having high fatigue strength according to Claim 2, wherein a surface metal of the steel after high-frequency induction quenching has a martensite structure having a prior austenite grain size of [[12]] $\leq$ μm or less.

6. (Original) The high-strength steel having high fatigue strength according to Claim 5, further comprising at least one selected from the group consisting of:

Al: 0.015-0.06 percent by mass,

Ti: 0.005-0.030 percent by mass,

Ni: 1.0 percent by mass or less,

Cr: 1.0 percent by mass or less,

V: 0.1 percent by mass or less,

Cu: 1.0 percent by mass or less,

Nb: 0.05 percent by mass or less,

Ca: 0.008 percent by mass or less, and

B: 0.004 percent by mass or less.

7. (Original) The high-strength steel having high fatigue strength according to Claim 2, wherein a surface metal of the steel has a quench-hardened case generated by nitriding and the size of a ferrite grain in the surface metal after the nitriding is 10 μm or less.

8. (Original) The high-strength steel having high fatigue strength according to Claim 7, further comprising at least one selected from the group consisting of:

Al: 0.015-0.06 percent by mass,

Ti: 0.005-0.030 percent by mass,

Ni: 1.0 percent by mass or less,

Cr: 1.0 percent by mass or less,

V: 0.1 percent by mass or less,

Cu: 1.0 percent by mass or less,

Nb: 0.05 percent by mass or less,

Ca: 0.008 percent by mass or less, and

B: 0.004 percent by mass or less.

9. (Original) The high-strength steel having high fatigue strength according to Claim 7 or 8, wherein the percentage of the cementite structure in a base metal of the steel is 4 percent by volume or more.

10. (Original) A method for manufacturing high-strength steel having high fatigue strength comprising:

processing a raw material containing

C: 0.3-0.8 percent by mass,

Si: 0.01-0.9 percent by mass,

Mn: 0.01-2.0 percent by mass,

Fe, and unavoidable impurities at 550-700°C under a strain of 1.0 or more.

11. (Original) The method for manufacturing high-strength steel having high fatigue strength according to Claim 10, wherein the raw material further comprises

Mo: 0.05-0.6 percent by mass.

12. (Original) The method for manufacturing high-strength steel having high fatigue strength according to Claim 11, wherein the raw material further comprises at least one selected from the group consisting of:

Al: 0.015-0.06 percent by mass,

Ti: 0.005-0.030 percent by mass,

Ni: 1.0 percent by mass or less,

Cr: 1.0 percent by mass or less,

V: 0.1 percent by mass or less,

Cu: 1.0 percent by mass or less,

Nb: 0.05 percent by mass or less,

Ca: 0.008 percent by mass or less, and

B: 0.004 percent by mass or less.

13. (Original) The method for manufacturing high-strength steel having high fatigue strength according to Claim 11 comprising:

processing the raw material at 550-700°C under a strain of 1.0 or more, and then

applying high-frequency induction quenching.

14. (Original) The method for manufacturing high-strength steel having high fatigue strength according to Claim 13, wherein the raw material further comprises at least one selected from the group consisting of:

Al: 0.015-0.06 percent by mass,

Ti: 0.005-0.030 percent by mass,

Ni: 1.0 percent by mass or less,

Cr: 1.0 percent by mass or less,

V: 0.1 percent by mass or less,

Cu: 1.0 percent by mass or less,

Nb: 0.05 percent by mass or less,

Ca: 0.008 percent by mass or less, and

B: 0.004 percent by mass or less.

15. (Original) The method for manufacturing high-strength steel having high fatigue strength according to Claim 11 comprising:

processing the raw material at 550-700°C under a strain of 1.0 or more, and then

applying nitriding to a surface metal of the steel.

16. (Original) The method for manufacturing high-strength steel having high fatigue strength according to Claim 15, wherein the raw material further comprises at least one selected from the group consisting of:

Al: 0.015-0.06 percent by mass,

Ti: 0.005-0.030 percent by mass,

Ni: 1.0 percent by mass or less,

Cr: 1.0 percent by mass or less,

V: 0.1 percent by mass or less,

Cu: 1.0 percent by mass or less,

Nb: 0.05 percent by mass or less,

Ca: 0.008 percent by mass or less, and

B: 0.004 percent by mass or less.